CONTENTS

PAGE

RITTER, D. Lateral bending during lizard locomotion 1

ŽĎÁREK, J. AND DENLINGER, D. L. Neural regulation of pupariation in tsetse larvae 11

FERGUSON, R. A., SEHDEV, N., BAGATTO, B. AND TUFTS, B. L. *In vitro* interactions between oxygen and carbon dioxide transport in the blood of the sea lamprey (*Petromyzon marinus*) 25

LANCASTER, W. C., KEATING, A. W. AND HENSON JR, O. W. Ultrasonic vocalizations of flying bats monitored by radiotelemetry 43

FRITSCHE, R., THOMAS, S. AND PERRY, S. F. Effects of serotonin on circulation and respiration in the rainbow trout *Oncorhynchus mykiss* 59

MARTIN, R. J., THORN, P., GRATION, K. A. F. AND HARROW, I. D. Voltage-activated currents in somatic muscle of the nematode parasite *Ascaris suum* 75

KITTMANN, R. AND SCHMITZ, J. Functional specialization of the scoloparia of the femoral chordotonal organ in stick insects 91

VEHOVSKY, Á., KEMENES, G. AND S.-RÓZSA, K. The monosynaptic connections between the serotonin-containing LP3 and RPA_5 neurones in *Helix* are serotonergic 109

BENNET-CLARK, H. C. AND YOUNG, D. A model of the mechanism of sound production in cicadas 123

EILAM, D. AND SHEFER, G. Reversal of interleg coupling in backward locomotion implies a prime role of the direction of locomotion 155

PACEY, A. A. AND BENTLEY, M. G. The fatty acid 8,11,14-eicosatrienoic acid induces spawning in the male lugworm *Arenicola marina* 165

CURTIS, B. J. AND WOOD, C. M. Kidney and urinary bladder responses of freshwater rainbow trout to isosmotic NaCl and $NaHCO_3$ infusion 181

PELSTER, B. AND SCHEID, P. The influence of gas gland metabolism and blood flow on gas deposition into the swimbladder of the European eel *Anguilla anguilla* 205

SZEWCZAK, J. M. AND JACKSON, D. C. Apneic oxygen uptake in the torpid bat *Eptesicus fuscus* 217

EVANS, P. D., REALE, V., MERZON, R. M. AND VILLEGAS, J. *N*-Methyl-D-aspartate (NMDA) and non-NMDA (metabotropic) type glutamate receptors modulate the membrane potential of the Schwann cell of the squid giant nerve fibre 229

EVANS, P. D., REALE, V., MERZON, R. M. AND VILLEGAS, J. The effect of a glutamate uptake inhibitor on axon–Schwann cell signalling in the squid giant nerve fibre 251

AUDSLEY, N., MCINTOSH, C. AND PHILLIPS, J. E. Isolation of a neuropeptide from locust corpus cardiacum which influences ileal transport 261

AUDSLEY, N., MCINTOSH, C. AND PHILLIPS, J. E. Actions of ion-transport peptide from locust corpus cardiacum on several hindgut transport processes 275

SHORT COMMUNICATIONS

LIGHTON, J. R. B. Direct measurement of mass loss during discontinuous ventilation in two species of ants 289

COUVILLON, P. A., ASAM, A. M. AND BITTERMAN, M. E. Further efforts at training pigeons to discriminate changes in the geomagnetic field 295

BAILEY, J. R. AND DRIEDZIC, W. R. Lack of correlation between cardiac myoglobin concentration and *in vitro* metmyoglobin reductase activity 301

INDEX TO VOLUMES 162 to 173

INFORMATION ABOUT THE JOURNAL